

Inventor(s): Larry J. Cantwell, Harry V. Paul
Attorney's Docket No.: 37922.0035

What Is Claimed Is:

1. A fault tolerant director switch comprising:

at least two input/output boards, each having at least one port;

at least two fabric switch boards for providing switched connections, one of which is adapted to function as a spare fabric switch board; and

a redundant command and control interface for said switch comprising at least two control modules.

2. A switch of Claim 1 further comprising a backplane multiplexed with said input/output boards such that each input or output board includes a redundant back link path through said backplane to said spare fabric switch board.

3. A switch of Claim 1, further comprising at least two fan modules, each of said fan modules being functionally equivalent with each other so as to permit universal replacement thereof.

4. A switch of Claim 1, wherein there are from 2 to 16 input/output boards, forming from 1 to 8 input/output modules, each input/output module comprising protocol engine chips, a local processor and any necessary interface ports.

5. A switch of Claim 1, wherein there are from 2 to 5 fabric switch boards, each fabric switch board comprising protocol engine chips, a local process and any necessary interface port components.

6. A switch according to Claim 1, wherein said control modules each comprise microprocessing capability and ethernet connectivity.

Inventor(s): Larry J. Cantwell, Harry V. Paul
Attorney's Docket No.: 37922.0035

plural jumper plugs, each jumper plug connected between chassis backplanes for providing interconnections between input/output boards of one of the plural chassis and fabric switch boards of another of the plural chassis

7. A switch of Claim 6 wherein said spare fabric switch board is a redundant fabric switch board for replacing a failed or degraded fabric switch board and wherein one or more jumper plugs connect the redundant fabric switch board to input/output boards.

8. A switch according to Claim 1, further comprising two power modules arranged in redundant configuration.

9. A method for providing fault tolerance in a director switch comprising:

providing FIO modules that are connected through a backplane through at least one fabric switch board by backlink paths, wherein two backlink paths are provided from each FIO to each fabric switch board;

in the event of failure detected by said switch, redirecting any failed backlink path to a spare fabric switch board.